

EXHIBIT A

Disclosure as to Expert Witness Professional Engineer Andrew Petersohn

July 28, 2023

I. Statement of Opinions, Bases, and Reasons

The following is a complete statement of all opinions that the Government will elicit from Professional Engineer Andrew Petersohn in its case-in-chief, along with the bases and reasons for them:¹

In sum, the Government expects that Mr. Petersohn will testify about cellular network operations, including but not limited to their design, coverage, testing, and performance, and offer his expert opinion about the likely approximate locations of the certain cellphones at the time they connected to specific cell sites in the Bronx, New York, as well as locations between South Carolina and New York, at certain times in or about September 2020 through in or about November 2020. In addition, the Government expects that Mr. Petersohn will testify about communications between these cellphones during the same time period.

With respect to cellular network operations and certain related topics, Mr. Petersohn is expected to testify that: (1) cellular service providers' cellular networks consist of cell sites, which are designed to provide service to cellular service providers' customers in a given area; (2) cellular service providers locate, arrange, and optimize cell sites with the goal of ensuring sufficient geographical coverage and capacity to service all users and further collect, store, and analyze cell site location data for wireless devices, including cellphones, that connect to those cell sites; (3) to accomplish these goals in densely populated metropolitan areas, cellular service providers place multiple cell sites, each of which is intended to service a relatively small geographical area that typically spans a few city blocks, depending on the surrounding geography, topography, and the proximity of other nearby cell sites; (4) the cellular network for T-Mobile in the Bronx, New York, and in locations between South Carolina and New York in or about September 2020 through in or about November 2020 is consistent with this placement; (5) wireless devices, including cellphones, are designed to meet universal industry protocols by which cellphones connect to the cell site that provides the strongest and clearest signal; (6) often (but not always), the nearest cell site provides this signal; however, the nearest cell site may not provide the strongest and clearest signal due to the geography and topography of an area, which implicates both natural and man-made obstructions; (7) even where the nearest cell site does not provide the strongest and clearest signal, the second-nearest cell site likely would provide this signal, for the same reasons of geography and topography, and in Mr. Petersohn's extensive experience conducting drive tests to analyze cellular networks' performance, he has almost always observed cellphones connect to one of the three or at most four-nearest cell sites; (8) the universal industry protocols result in a cellphone connecting to the cell site with the strongest and clearest signal are a necessity because they allow cellular networks to reliably, predictably, and efficiently service customers and allow

¹ The defense has not yet provided notice of any testimony under Federal Rule of Criminal Procedure 16(b)(1)(C). To the extent such timely notice is provided, the Government will supplement this notice to include a statement of opinions it will elicit during its rebuttal to counter that testimony, as required by Federal Rule of Criminal Procedure 16(a)(1)(G).

for wireless device inter-operability across different cell sites as well as different regions around the country and manufacturers of cellphones; and, for all of these reasons, (9) analyzing cell site location data obtained from cellular service providers is a reliable way to approximate the geographical area or range within which a wireless device, including a cellphone, was likely located at the time that it connected to a cell site, particularly in metropolitan areas with dense cellular networks, including for cellphones serviced by T-Mobile in the Bronx, New York, or in locations between South Carolina and New York in or about September 2020 through in or about November 2020.

Mr. Petersohn is also expected to testify as to the likely approximate location of the cellphones assigned call numbers 347-259-1561, used by the defendant (the “Defendant Phone”); 646-875-1041, used by Ricardo Rodriguez Resto (the “Rodriguez Resto Phone”); 914-800-4171, used by Jamil Bey (the “Bey Phone”), and 843-460-0166, used by Keith Vereen (the “Vereen Phone”) (collectively, the “Phones”),² at the time the Phones connected to specific cell sites in the Bronx, New York, as well as locations between South Carolina and New York. The expected date range of Mr. Petersohn’s testimony is from in or about September 2020 through in or about November 2020. In addition to the testimony about the approximate locations of the Phones, Mr. Petersohn will testify about contacts between the Phones during the same time period. Mr. Petersohn’s opinion regarding the location of the Phones is based on his review of the T-Mobile records containing, among other things, cell site location data for the Phones, which T-Mobile produced pursuant to a search warrant for historical cell site records, 22 Mag. 933 (USAO_0004827-0004841), and call detail records for the Phones, which T-Mobile produced pursuant to grand jury subpoenas. These records specifically include the following:

- USAO_0004908-0004911, which relate to the Defendant Phone;
- USAO_0004904-0004907, which relate to the Rodriguez Resto Phone;
- USAO_0004912-0004915, which relate to the Bey Phone; and
- USAO_0004900-0004903, which relate to the Vereen Phone.

Mr. Petersohn will specifically testify that at the time of the specified connection(s) to a specified cell site (the “Connected Site”), the Phones were likely located within a distance of the Connected Site that is slightly more than halfway between the Connected Site and the next-nearest cell site. For Connected Sites that are divided into three sectors (*i.e.*, the 120-degree wedge-shaped area denoted by the shaded sector extending from the Connected Site), Mr. Petersohn will testify that the specified cellphone was likely within the area slightly more than halfway between the Connected Site and the next-nearest cell site in the direction the sector faces. Mr. Petersohn will acknowledge that a cellphone located outside, but very near to the edge, of the 120-degree sector lines might be serviced by that sector. For Connected Sites that are micro-cell or small-cell sites that do not have sectors, Mr. Petersohn will testify that they service cellphones located in all directions, 360 degrees, and as a result (and due to their shorter antennae center lines) also have smaller coverage ranges relative to nearby macro-cell sites with sectors. As a result, the cell site location information from such small-cell sites provides no indication of the cellphone’s direction

² Mr. Petersohn’s testimony about the users of these phones will, at minimum, be based on records provided by Western Union (USAO_0004780).

relative to the cell site at the time of the connection but does indicate that the cellphone was likely within 1,000 feet of the small-cell site.

At a high level, Mr. Petersohn will testify that the location data is consistent with the Vereen Phone making at least four roundtrips from South Carolina to New York from on or about September 14, 2020 through on or about November 3, 2020. During these trips, the data shows that the Vereen Phone traveled to the Bronx, New York. During this time frame, the Defendant Phone, the Bey Phone, and the Rodriguez Resto Phone also appeared to spend time in the Bronx, at times in the vicinity of the Vereen Phone. Mr. Petersohn may also testify regarding frequent locations for certain of the Phones in or around September 2020 through in or around November 2020. Mr. Petersohn is expected to prepare draft maps and other reports reflecting the geographical range in which the Phones were used at certain times between in or about September 2020 through in or about November 2020.

Mr. Petersohn's testimony will be based on his training, education, and experience, including his (1) education in obtaining his Bachelor of Science and Master of Engineering degrees, both in Electrical Engineering; (2) work since 1997 as an employee or contractor for multiple cellular service providers; (3) experience designing and testing cellular networks; and (4) cell site location data and call detail records already provided to you, as described above.

II. Qualifications

Mr. Petersohn's qualifications, including all publications authored in the previous ten years, are contained in his *curriculum vitae*, attached hereto.

III. List of Cases

The following is a list, to the best of Mr. Petersohn's recollection and ability to reconstruct, of other cases in which, during the previous four years, Mr. Petersohn has testified as an expert at trial or by deposition.

Approximate Date	Case Name / Caption	Court
2019	New York v. Lema-Yaucan, No. 356/2017	Rockland County Court
2021	United States v. Sidney Scales, 19 Cr. 96 (JSR)	Southern District of New York
2021	Pennsylvania v. Kashawn Divine Flowers, CP-67-CR-0001962-2019	Pennsylvania State Court
2021	Pennsylvania v. David Juniro Seecharan	Pennsylvania State Court
2022	United States v. Lawrence Ray, 20 Cr. 110 (LJL)	Southern District of New York
2022	United States v. Huertero, 20 Cr. 580 (ER) (<i>Fatico</i> hearing)	Southern District of New York
2022	United States v. Bimbow, 21 Cr. 48 (JPO)	Southern District of New York
2022	United States v. Abreu, 21 Cr. 300 (JMF)	Southern District of New York
2022	United States v. Donnell Russell, 20 Cr. 538 (PGG)	Southern District of New York
2022	United States v. Orelie, 20 Cr. 636 (RMB)	Southern District of New York
2022 (September & December)	United States v. Montilla, 19 Cr. 546 (PKC)	Southern District of New York
2022	United States v. Sosa-Zarzuela, 21 Cr. 41 (PAC)	Southern District of New York
2022	United States v. Hampton, 21 Cr. 766 (JPC)	Southern District of New York

2023	United States v. Stanislav Yakubov, 22 Cr. 206 (ER)	Southern District of New York
2023	United States v. Suresh Munshani, 22 Cr. 215 (JSR)	Southern District of New York
2023	United States v. Weeks, 16 Cr. 167 (LAP) (violation of supervised release hearing)	Southern District of New York
2023	United States v. Copeland, 21 Cr. 521 (KMK)	Southern District of New York
2023	United States v. Victor Molina-Rodriguez, 22 Cr. 632 (AKH)	Southern District of New York

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Education:

Lehigh University, Bethlehem, PA
Master of Engineering, Electrical Engineering, May 2005
Bachelor of Science, Electrical Engineering, May 1999

Professional Associations:

Registered Professional Engineer
Pennsylvania License number 073239
Maryland License number 32840
Delaware License number 14438
Virginia License number 042672
New York License number 084382
New Jersey License number GE49376
Florida License number 84819

Member of the National Society of Professional Engineers
Member of the Pennsylvania Society of Professional Engineers

Related Experience:

Principal Engineer, dBm Engineering, P.C., Fairview Village, PA
January 2006 – Present
Senior Engineer II, Wireless Facilities Incorporated, King of Prussia, PA
January 2004 – January 2006
Radio Frequency Engineer, Nextel Communications, Bensalem, PA
October 2001 – January 2004
Wireless Consultant, Millennium Engineering, P.C., Conshohocken, PA
May 2001 – October 2001
Member of Technical Staff, Wireless Microsystems, Reading, PA
June 2000 – May 2001
Systems Engineer, Raytheon N&MIS, Portsmouth, RI
July 1999 – June 2000
Radio Frequency Design Co-Op, Verizon Wireless, Plymouth Meeting, PA
October 1997 – April, 1999